

Amendments to the Claims:

1-31. (Canceled)

32. (Currently Amended) A pharmaceutical preparation for tolerization, composition comprising

(i) a pharmaceutically acceptable carrier and

(ii) an amount of an isolated human polypeptide effective for tolerizing an individual to an autoantigen, wherein: said human polypeptide consists consisting of an amino acid sequence, wherein said amino acid sequence

(a) defines a sequence motif containing core MHC binding residues comprising PV motif #1 (SEQ ID NO: 21), and

(b) is based upon the structure of the binding pocket of a an HLA-DR DRB1*0402 protein that, which HLA-DR protein is selected from the group consisting of HLA-DR2 and HLA-DR4, and is associated with a human autoimmune disease selected from Pemphigus Vulgaris (PV) or Multiple Sclerosis (MS); wherein said human polypeptide binds said HLA-DR protein, and activates autoreactive T cells from a subject having said autoimmune disease;, and, wherein said human polypeptide is a non-myelin basic protein polypeptide.

33-34. (Canceled)

35. (Currently Amended) The pharmaceutical preparation composition of claim 33 32, wherein said polypeptide consists of an the amino acid sequence set forth in selected from SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, or SEQ ID NO: 7.

36-39. (Canceled)

40. (Currently Amended) The pharmaceutical preparation composition of claim 33 35, wherein said polypeptide consists of an the amino acid sequence set forth in selected from SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, or SEQ ID NO: 7.

41-42. (Canceled)

43. (New) The composition of claim 32, wherein the polypeptide is 15 amino acids in length.

44. (New) A composition comprising

- (i) a pharmaceutically acceptable carrier, and
- (ii) an isolated polypeptide consisting of an amino acid sequence, wherein said amino acid sequence
 - (a) defines a sequence motif containing core MHC binding residues comprising MS motif #1 (SEQ ID NO: 18), and
 - (b) is based upon the structure of the binding pocket of an DRB1*1501 protein that is associated with multiple sclerosis,
wherein said polypeptide is a non-myelin basic protein polypeptide.

45. (New) A composition comprising

- (i) a pharmaceutically acceptable carrier, and
- (ii) an isolated polypeptide consisting of an amino acid sequence, wherein said amino acid sequence
 - (a) defines a sequence motif containing core MHC binding residues comprising MS motif #2 (SEQ ID NO: 19), and
 - (b) is based upon the structure of the binding pocket of an DRB1*1501 protein that is associated with multiple sclerosis,
wherein said polypeptide is a non-myelin basic protein polypeptide.

46. (New) A composition comprising

- (i) a pharmaceutically acceptable carrier, and
- (ii) an isolated polypeptide consisting of an amino acid sequence, wherein said amino acid sequence
 - (a) defines a sequence motif containing core MHC binding residues comprising MS motif #2 (SEQ ID NO: 20), and

(b) is based upon the structure of the binding pocket of an DRB1*1501 protein that is associated with multiple sclerosis,
wherein said polypeptide is a non-myelin basic protein polypeptide.

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- 4 -